

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows.

Please replace the paragraph of the specification starting on line 23 of page 9, as originally filed, with the paragraph below, which is marked-up to show the changes therein:

Each of the mobile stations 20 through 24 ~~analyses~~
analyzes the first control signal received through the mobile station
antennas to determine whether the first control signal transmitted
from the base station 10 is correctly addressed thereto. The HS-
DSCH signal reflects the second and third characteristics of the
channels. The second characteristics show that the transmission of
data through a channel is completed without channel switching
because the length of a data frame, i.e., the unit of data
transmission, is much shorter than the channel coherence time due
to a general Doppler effect. The third characteristics are related to
the non-continuous, burst transmission of data through a channel
commonly owned by all of the mobile stations 20 through 24
belonging to the base station 10.

Please replace the paragraph of the specification starting on line 5 of page 13, as originally filed, with the paragraph below, which is marked-up to show the changes therein:

where $\mathbf{n}(k)$ denotes a noise component, and $\mathbf{U}(k)\sum(k)\mathbf{V}^H(k)$
means singular value decomposition (SVD), which is a kind of
common matrix operation, using the first characteristics $\mathbf{H}(k)$, and
 ~~\mathbf{s} is modelled~~ \mathbf{s} is modeled as equation (6) below. SVD in multi-
antenna systems is described in an article entitled "Fading
Correlation and Its effect on the Capacity of Multielement Antenna
Systems" by *Da-Shan Shiu, Gerard J. Foschini, Michael J. Gans,*
and ~~*Josep*~~ *Joseph* *M. Kahn*, IEEE Transactions on Comm. Vol. 48,
No. 3, 502-513, March 2003.